

**PATENT** Attorney Docket No.: NEI-00106

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In re  | Application of:                  | ) Group Art Unit: 1764  |     |
|--------|----------------------------------|---|-----|
| Gary   | R. McLuen, et al.                | ) Examiner:   |     |
| Serial | No.: 09/901,949                  | )<br>TRANSMITTAL LETTER   | 3   |
| Filed: | July 9, 2001                     | )   |     |
| For:   | MULTI-WELL ROTARY<br>SYNTHESIZER | ) 260 Sheridan Avenue, Suite<br>) Palo Alto, CA 94306<br>) (650) 833-0160 | 420 |

**Assistant Commissioner for Patents** Washington, D.C. 20231

Sir:

Enclosed please find an Information Disclosure Statement and Form PTO-1449, including a copy of the references contained thereon, for filing in the U.S. Patent and Trademark Office.

The Commissioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. 08-1275. An originally executed duplicate of this transmittal is enclosed for this purpose.

> Respectfully submitted, HAVERSTOCK & OWENS LLP

Dated: Oct. 2. 200/

Jonathan O. Owens Reg. No.: 37,902

Attorneys for Applicants

CERTIFICATE OF MAILING (37 CFR § 1.8(a))

hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington D.C. 20231

HAVERSTOCK & OWENS LLP.

nate: 10/2/01 Bv: 1/10/2 . Resson

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Attorney Docket No.: <u>NEI-00106</u>

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In | re | Application | of: |  |
|----|----|-------------|-----|--|
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Gary R. McLuen, et al.

Serial No.: 09/901,949

Filed: July 9, 2001

For: MULTI-WELL ROTARY

SYNTHESIZER

Examiner:

INFORMATION DISCLOSURE STATEMENT

260 Sheridan Avenue, Suite 420 Palo Alto, California 94306

(650) 833-0160

Group Art Unit: 1764

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The citation listed below, copy attached, may be material to the examination of the above-identified application, and is therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R. §§ 1.56 and 1.97. The Examiner is requested to make this citation of official record in this application.

Applicants have become aware of the following printed publication which may be material to the examination of this application:

- U.S. Patent 3,583,230;
- U.S. Patent 3,917,455;
- U.S. Patent 4,415,732;
- U.S. Patent 4,458,066;
- U.S. Patent 4,816,513;
- U.S. Patent 4,837,159;
- U.S. Patent 5,047,524;
- U.S. Patent 5,053,454;
- U.S. Patent 5,093,268;
- U.S. Patent 5,096,807;
- U.S. Patent 5,112,736;
- U.S. Patent 5,132,418;
- U.S. Patent 5,239,484;

CERTIFICATE OF MAILING (37 )

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington D.C. 20231

HAVERSTOCK & OWENS LLP.

nate: 10/2/01 BV: JALLA D. RUSSON

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**PATENT** Attorney Docket No.: NEI-00106

- U.S. Patent 5,262,530;
- U.S. Patent 5,297,288;
- U.S. Patent 5,324,483;
- U.S. Patent 5,356,776;
- U.S. Patent 5,380,495;
- U.S. Patent 5,395,594;
- U.S. Patent 5,427,930;
- U.S. Patent 5,437,979;
- U.S. Patent 5,453,247;
- U.S. Patent 5,468,606;
- U.S. Patent 5,472,672;
- U.S. Patent 5,503,805;
- U.S. Patent 5,510,270;
- U.S. Patent 5,522,272;
- U.S. Patent 5,529,756;
- U.S. Patent 5,541,113;
- U.S. Patent 5,545,531;
- U.S. Patent 5,547,839;
- U.S. Patent 5,563,033;
- U.S. Patent 5,571,639;
- U.S. Patent 5,593,839;
- U.S. Patent 5,597,694;
- U.S. Patent 5,605,662;
- U.S. Patent 5,632,957;
- U.S. Patent 5,633,365; U.S. Patent 5,639,428;
- U.S. Patent 5,645,114;
- U.S. Patent 5,645,801;
- U.S. Patent 5,653,939;
- U.S. Patent 5,690,894;
- U.S. Patent 5,707,797;
- U.S. Patent 5,720,923;
- U.S. Patent 5,720,928;

PATENT Attorney Docket No.: <u>NEI-00106</u>

- U.S. Patent 5,736,333;
- U.S. Patent 5,744,305;
- U.S. Patent 5,762,881;
- PCT Publication No. WO 91/13084;
- PCT Publication No. WO 98/10857;
- PCT Publication No. WO 98/36829;
- PCT Publication No. WO 98/39099;
- PCT Publication No. WO 98/57181;
- German Publication No. DE 196 42 777 A1;
- German Publication No. DE 297 19 919 U1;
- German PCT Publication No. DE 39 08725 A01;
- Great Britain PCT Publication GB 2 146 030 A;
- L.E. Sindelar and J.M. Jaklevic, "High-Throughout DNA Synthesis in a Multichannel Format," Nucleic Acids Research, 1995, vol. 23, no. 6, pages 982-987, Oxford University Press;
- Robert L. Letsinger and V. Mahadevan, "Stepwise Synthesis of Oligodeoxyribonucleotides on an Insoluble Polymer Support," J Am Chem Soc, Vol. 88:22, pages 5319-5324, November 20, 1966;
- VICI "Injectors and Switching Valves" Valco Instruments Co, Inc. Valco International, December 12, 1999, p. 1-2; and
- Valve Handbook by Philip L. Skousen, McGraw-Hill, 1997, pages 58-60.

This Information Disclosure Statement under 37 C.F.R. §§ 1.56 and 1.97 is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that anyone or more of these citations constitutes prior art.

Respectfully submitted,
HAVERSTOCK & OWENS LLP

Dated: Oct. 2, 200/

Jonathan O. Owen

Reg. No.: 37,902 Attorneys for Applicants ECENEL 17 2001 17 170

Sheet 1 of 2

FORM PTO-1449 (Modified)

U.S. Department of Commerce Patent and Trademark Office

Attorney Docket No.: NEI-00106

Serial No.: 09/901,949

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary)

Applicant: Gary R. McLuen, et al.

Group Art Unit: 1764 Filing Date: July 9, 2001

| (Use Several Sheets If Necessary)  CFR-§-1.98(b)) |                     |                           | Filing Date: July 9, 200 | 1                               | Group Art Unit: 1764 |              |             |
|---|---------------------|---------------------------|--------------------------|---------------------------------|----------------------|--------------|-------------|
| PE JC,  | 6                   |                           | U                        | .S. PATENT DOCUMENTS            | Т                    |              |             |
| Examiner Initials.                                | 병                   | Serial / Patent<br>Number | Issue Date               | Applicant / Patentee            | Class                | Subclass     | Filing Date |
| Initials 1  | <del>- (5)</del>  - | 3,583,230                 | 06/08/71                 | James A. Patterson              | 73                   | 422          | 06/12/68    |
| 10.   |                     | 3,383,250                 | 11/4/75                  | Bak et al.                      | 23                   | 253 R        | 05/10/74    |
| THE THE   | AB                  | 3,917,455                 | 11/15/83                 | Caruthers et al.                | 536                  | 27           | 03/27/81    |
|   | AC                  | 4,415,732                 | 07/03/84                 | Caruthers et al.                | 536                  | 27           | 03/24/81    |
|   |                     |                           | 03/28/89                 | Bridgham et al.                 | 525                  | 54.11        | 05/22/87    |
|   | AE                  | 4,816,513                 | 6/6/89                   | Yamada                          | 436                  | 45           | 09/17/85    |
|   | AF                  | 4,837,159                 |                          | Andrus et al.                   | 536                  | 27           | 12/21/88    |
|   | AG                  | 5,047,524                 | 09/10/91                 | Judd                            | 525                  | 54.11        | 02/15/89    |
|   | AH                  | 5,053,454                 | 10/01/91                 | Leventis et al.                 | 436                  | 172          | 01/28/91    |
|   | AI                  | 5,093,268                 | 03/03/92                 |                                 | 435                  | 6            | 12/01/89    |
|   | AJ                  | 5,096,807                 | 03/17/92                 | Leaback                         | 435                  | 6            | 06/14/89    |
|   | AK                  | 5,112,736                 | 05/12/92                 | Caldwell et al.                 | 536                  | 27           | 06/18/84    |
|   | AL                  | 5,132,418                 | 07/21/92                 | Caruthers et al.                | 364                  | 500          | 10/13/92    |
|   | AM                  | 5,239,484                 | 08/24/93                 | Hayashi et al.                  | 536                  | 25.31        | 07/27/90    |
|   | AN                  | 5,262,530                 | 11/16/93                 | Andrus et al.                   |                      | 700          | 06/10/92    |
|   | AO                  | 5,297,288                 | 03/22/94                 | Hemminger et al.                | 395                  |              | 02/02/93    |
|   | AP                  | 5,324,483                 | . 06/28/94               | Cody et al.                     | 422                  | 131          | 09/09/92    |
|   | AQ                  | 5,356,776                 | 10/18/94                 | Kambara et al.                  | 435                  | 6            | 08/27/93    |
|   | AR                  | 5,380,495                 | 01/10/95                 | Chang et al.                    | 422                  | 131          |             |
|   | AS                  | 5,395,594                 | 03/07/95                 | Nokihara et al.                 | 422                  | 135          | 08/24/92    |
|   | AT                  | 5,427,930                 | 06/27/95                 | Birkenmeyer et al.              | 435                  | 91.52        | 06/28/91    |
|   | AU                  | 5,437,979                 | 08/01/95                 | Rampal et al.                   | 435                  | 6            | 08/24/92    |
|   | AV                  | 5,453,247                 | 09/26/95                 | Beavis et al.                   | 422                  | 68.1         | 11/23/93    |
|   | AW                  | 5,468,606                 | 11/21/95                 | Bogart et al.                   | 435                  | 5            | 07/31/92    |
|   |                     | 5,472,672                 | 12/05/95                 | Brennan                         | 422                  | 131          | 10/22/93    |
|   | AX_                 | 5,503,805                 | 04/02/96                 | Sugarman et al.                 | 422                  | 131          | 11/02/93    |
|   | AY                  |                           | 04/23/96                 | Fodor et al.                    | 436                  | 518          | 9/30/92     |
|   | AZ                  | 5,510,270                 | 06/04/96                 | Vecere et al.                   | 73                   | 864.62       | 5/17/95     |
|   | BA                  | 5,522,272                 |                          | Brennan                         | 422                  | 131          | 7/13/95     |
|   | BB                  | 5,529,756                 | 06/25/96                 | Siddigi et al.                  | 436                  | 56           | 9/22/93     |
|   | BC                  | 5,541,113                 | 07/30/96                 | Rava et al.                     | 435                  | 6            | 6/07/95     |
|   | BD                  | 5,545,531                 | 08/13/96                 | Dower et al.                    | 435                  | 6            | 2/06/90     |
|   | BE                  | 5,547,839                 | 08/20/96                 | Lawrence et al.                 | 435                  | 6            | 61/26/93    |
|   | BF                  | 5,563,033                 | 10/08/96                 |                                 | 430                  | コス           | 05/24/94    |
|   | BG                  | 5,571,639                 | 11/05/96                 | Hubbell et al.                  | 435                  | 0            | 00/02/95    |
|   | ВН                  | 5,593,839                 | 01/14/97                 | Hubbell et al.                  | 435                  | 4            | 10/9/193    |
|   | Bl                  | 5,597,694                 | 01/28/97                 | Munroe et al.                   | 422                  | 68.1         | 8 11/0.798  |
|   | ВЈ                  | 5,605,662                 | 02/25/97                 | Heller et al.  Date Considered: | 422                  | <del>_</del> | 1           |

EXAMINER:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Serial No.: 09/901,949 U.S. Department of Commerce Patent and Trademark Office Attorney Docket No.: NEI-00106 FORM PTO-1449 (Modified) Applicant: Gary R. McLuen, et al. INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary) Group Art Unit: 1764 Filing Date: July 9, 2001 (37 CFR § 1.98(b)) U.S. PATENT DOCUMENTS Subclass Filing Date Class Serial / Patent Number Applicant / Patentee Issue Date 68.1 09/09/94 422 Heller et al. 05/27/97 5,632,957 04/28/95 24.31 536 Stokke et al. 05/27/97 5,633,365 07/19/94 422 112 06/17/97 Cottingham 5,639,428 05/31/94 141 145 Bogen et al. 07/08/97 5,645,114 08/18/95 422 68.1 Bouma et al. 07/08/97 во 5,645,801 08/07/95 422 50 Hollis et al. 08/05/97 BP 5,653,939 68.1 05/23/95 422 Pinkel et al. 11/25/97 BQ 5,690,894 06/23/94 6 435 Windle 5,707,797 01/13/98 BR 08/31/94 68.1 422 Haff et al. 02/24/98 5,720,923 BS 04/03/95 186 422 02/24/98 Schwartz 5,720,928 BT 06/04/95 6 435 Livak et al. 04/07/98 BU 5,736,333 06/06/95 6 435 Fodor et al. 04/28/98 5,744,305 BV 10/29/96 422 132 Harness et al. 06/09/98 BW 5,762,881 FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS Translation Document Number Class Subclass Country / Patent Office Publication Date No Yes  $\mathbf{X}$ C07K 1/04 **PCT** WO 91/13084 09/05/91 BX X 19/00 B01J **PCT** WO 98/10857 03/19/98 BY 19/00 X B01J **PCT** WO 98/36829 08/27/98 BZX 3/00 B01J **PCT** 09/11/98 WO 98/39099 CA 35/10 X G01N PCT 12/17/98 WO 98/57181 CB Х 19/00 B01J DE 196 42 777 DE 05/28/98 CC Х 19/00 DE 297 19 919 B01J DE 05/12/99 CD Х 35/00 DE 39 08725 G01N DE 09/20/90 CE A01 X C07H 1/00 GB GB 2 146 030 A 04/11/85 CF OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) L.E. Sindelar and J.M. Jaklevic, "High-Throughout DNA Synthesis in a Multichannel Format," Nucleic Acids Research, 1995, vol. 23, no. 6, pages 982-987, Oxford University Press. CG Robert L. Letsinger and V. Mahadevan, "Stepwise Synthesis of Oligodeoxyribonucleotides on an Insoluble Polymer Support," JAm Chem Soc, Vol. 88:22, pages 5319-5324, November 20, 1966 Robert L. Letsinger and Switching Valves" Valco Instruments Co, Inc. Valco International, December Vict "Injectors and Switching Valves" Valco Instruments Co, Inc. Valco International, December Valve Handbook by Philip L. Skousen, McGraw-Hill, 1997, pages 58-60

Date Considered:

Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. CH CI CJ Examiner: EXAMINER: